

FIG.1

SEARCHED ITEM	ANSWER
10001	X
10010	Y
⋮	⋮

FIG.2

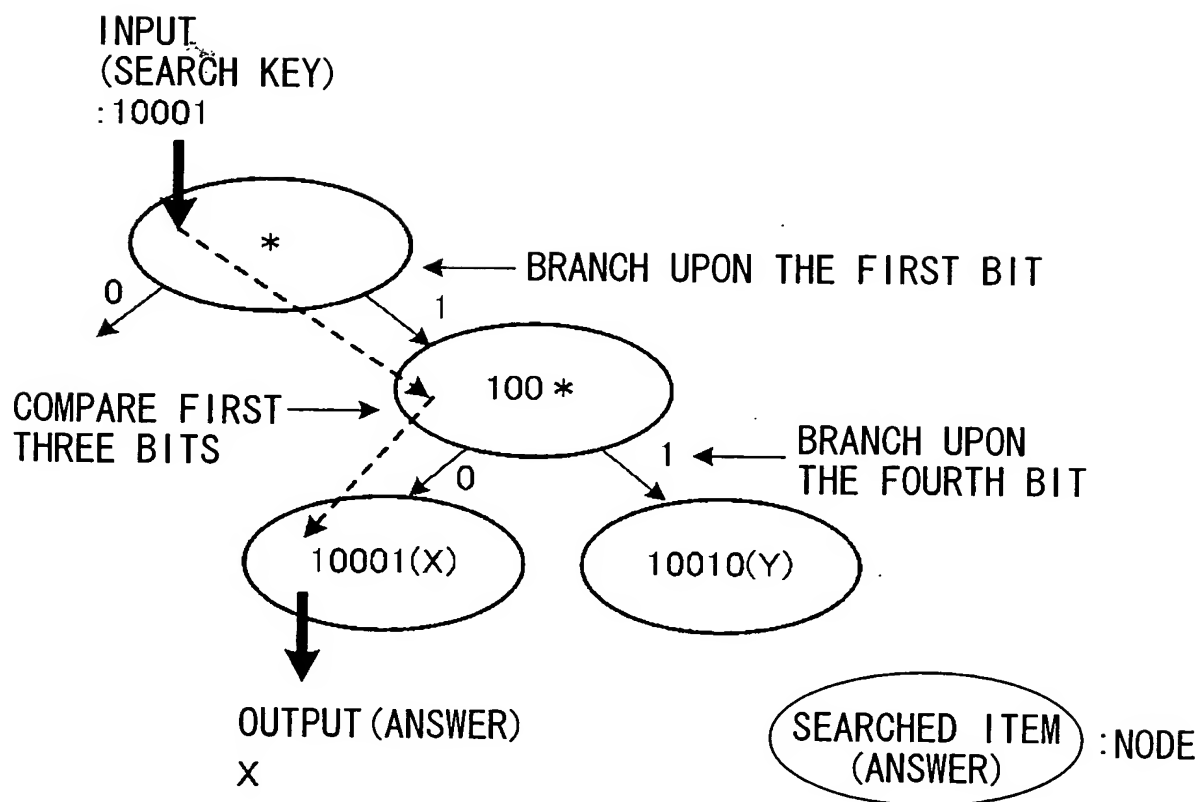


FIG.3

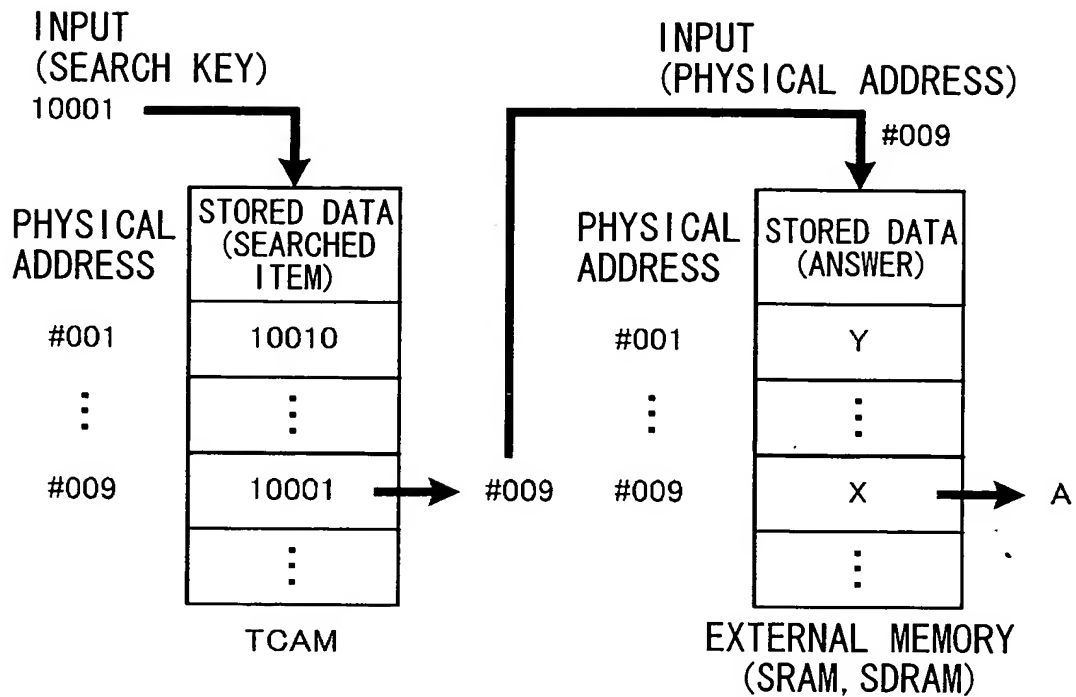


FIG.4

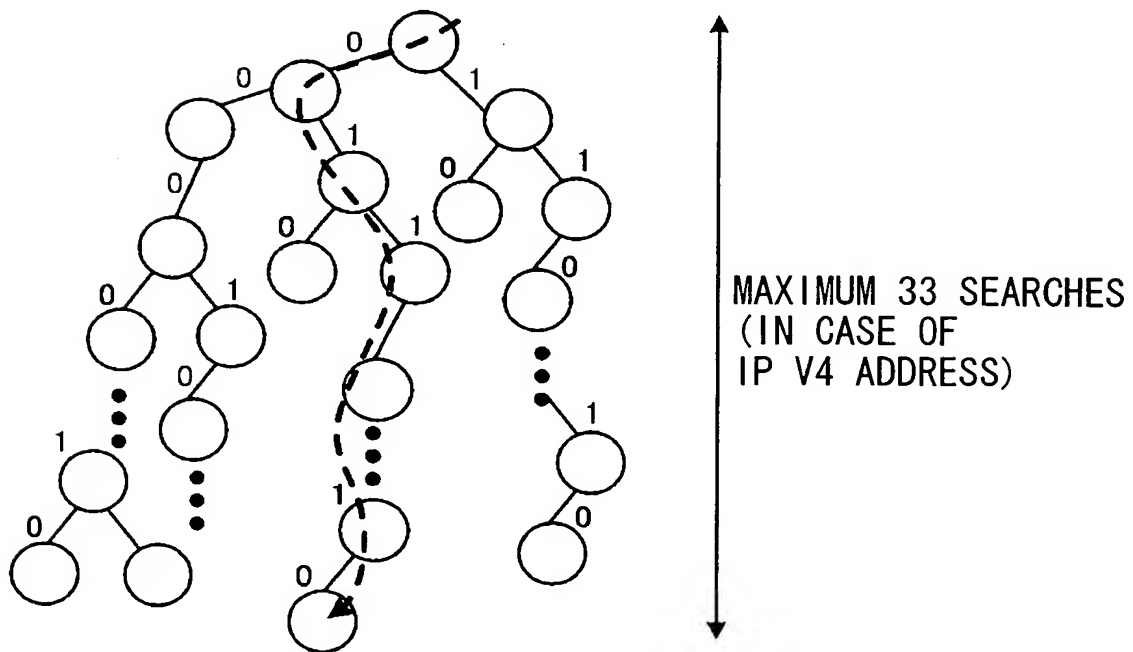


FIG.5

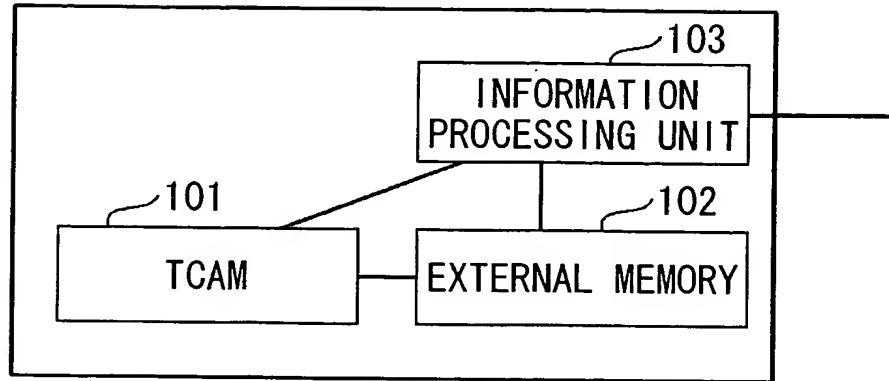


FIG.6

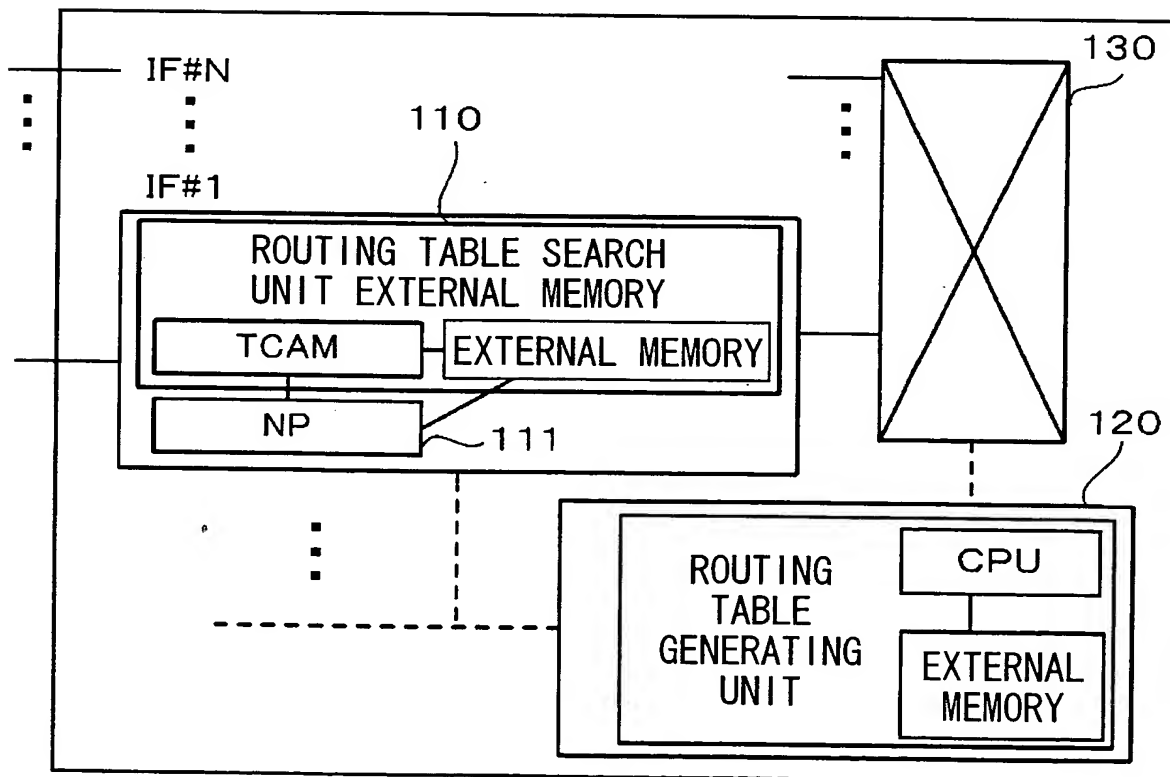


FIG.7

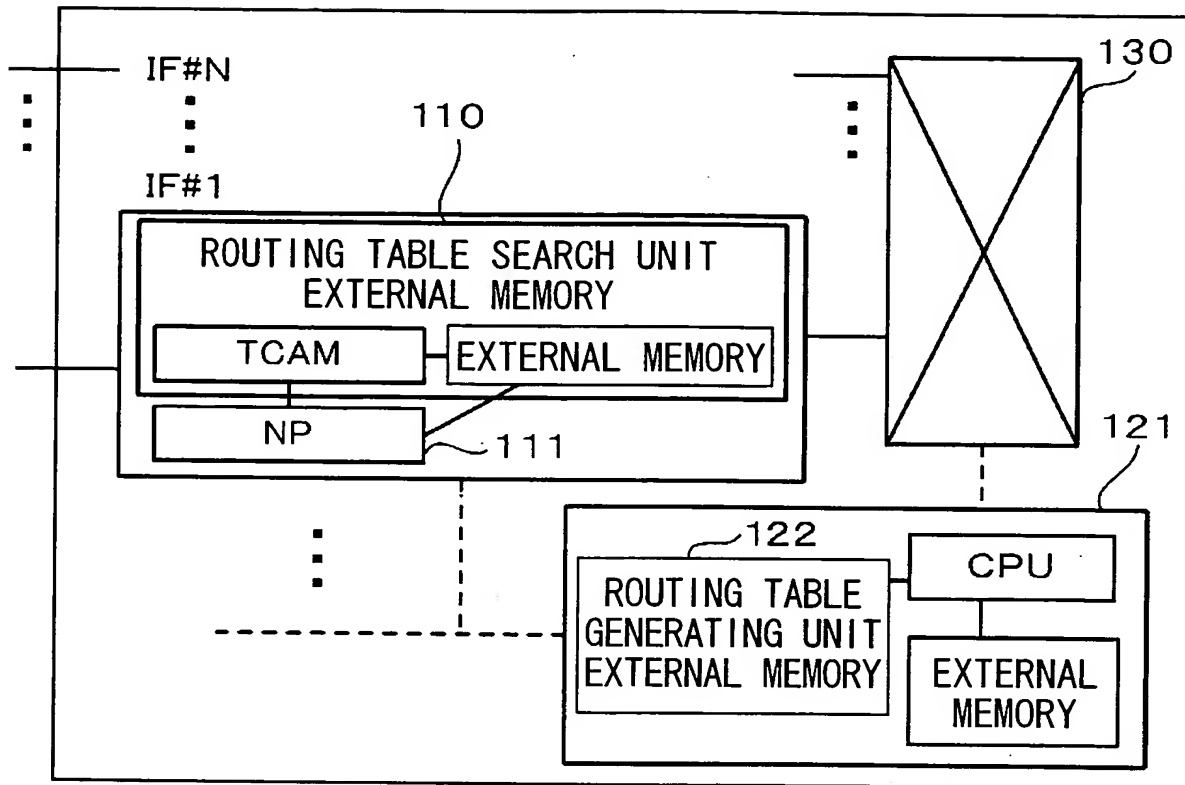


FIG.8

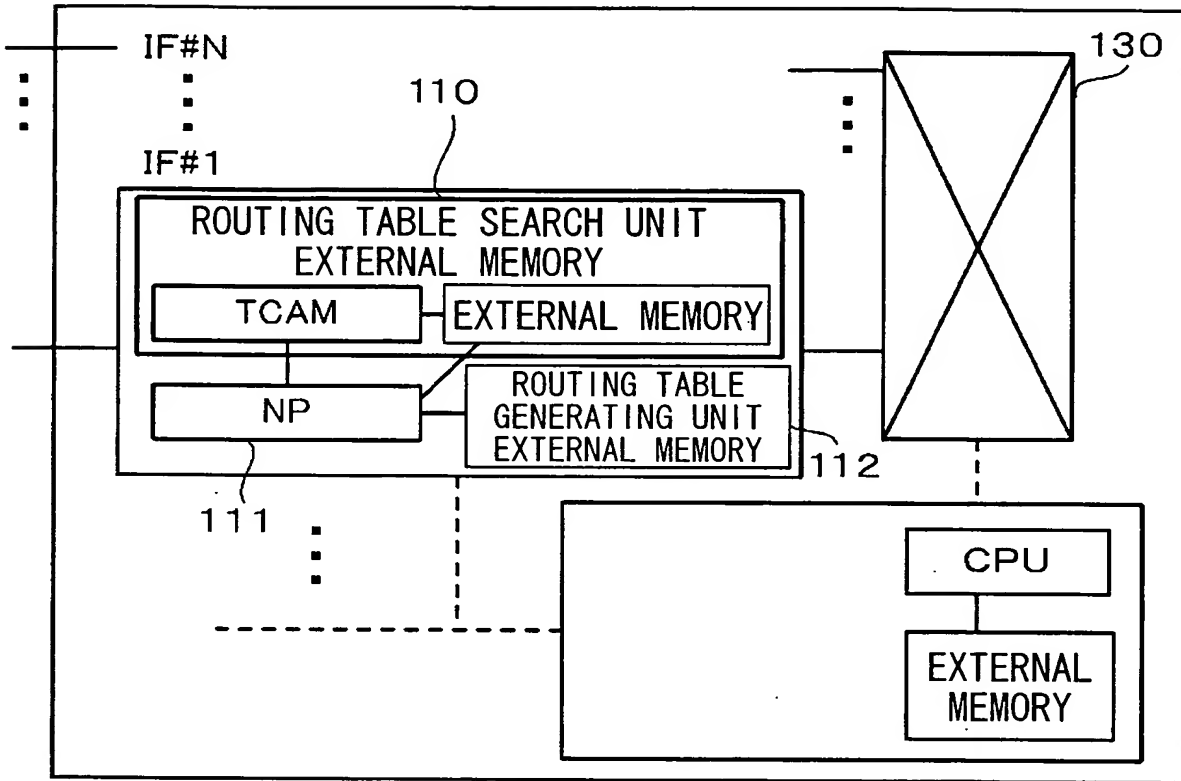


FIG.9

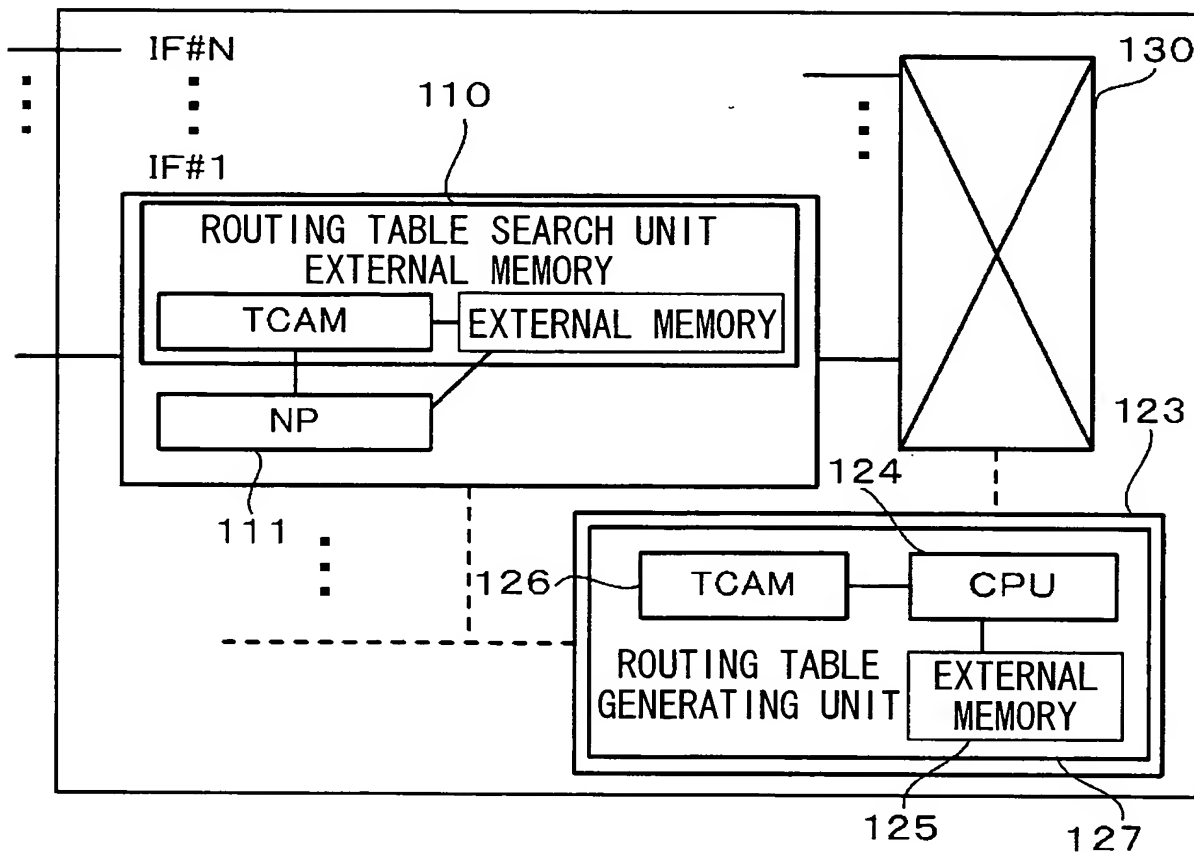


FIG.10

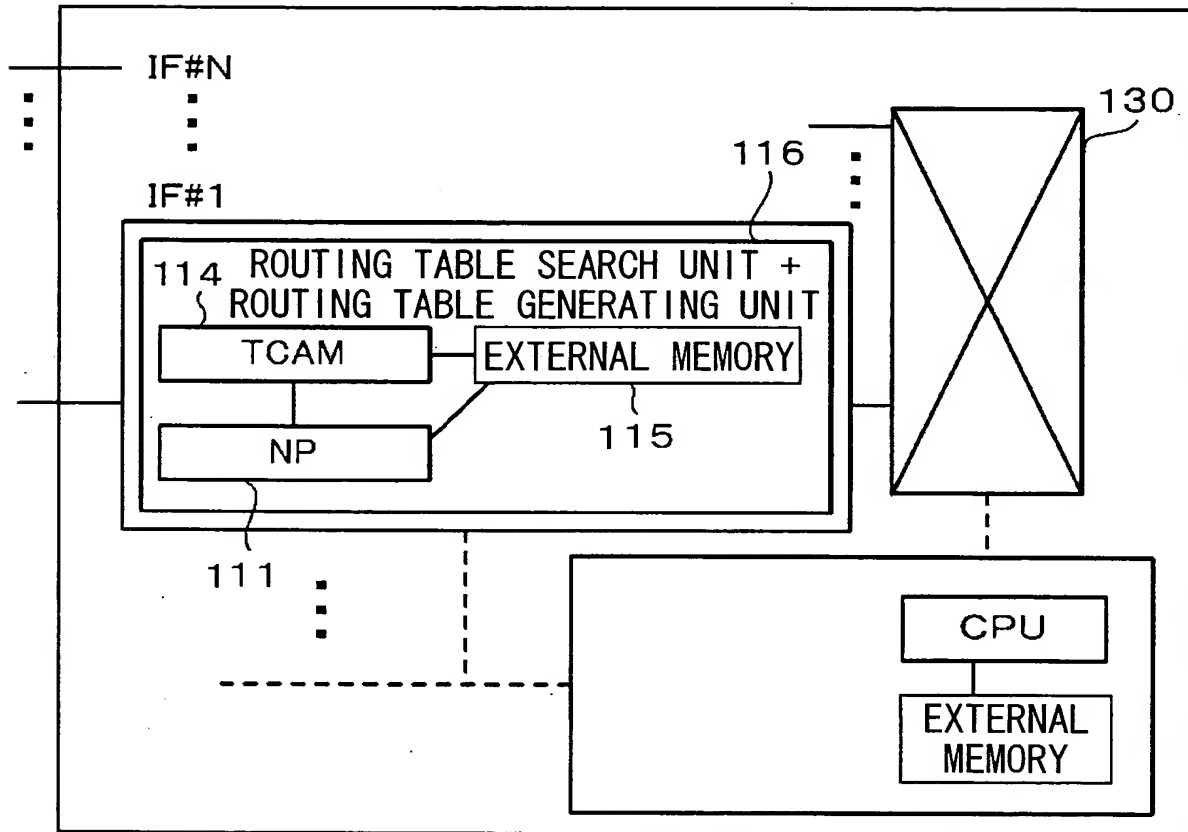
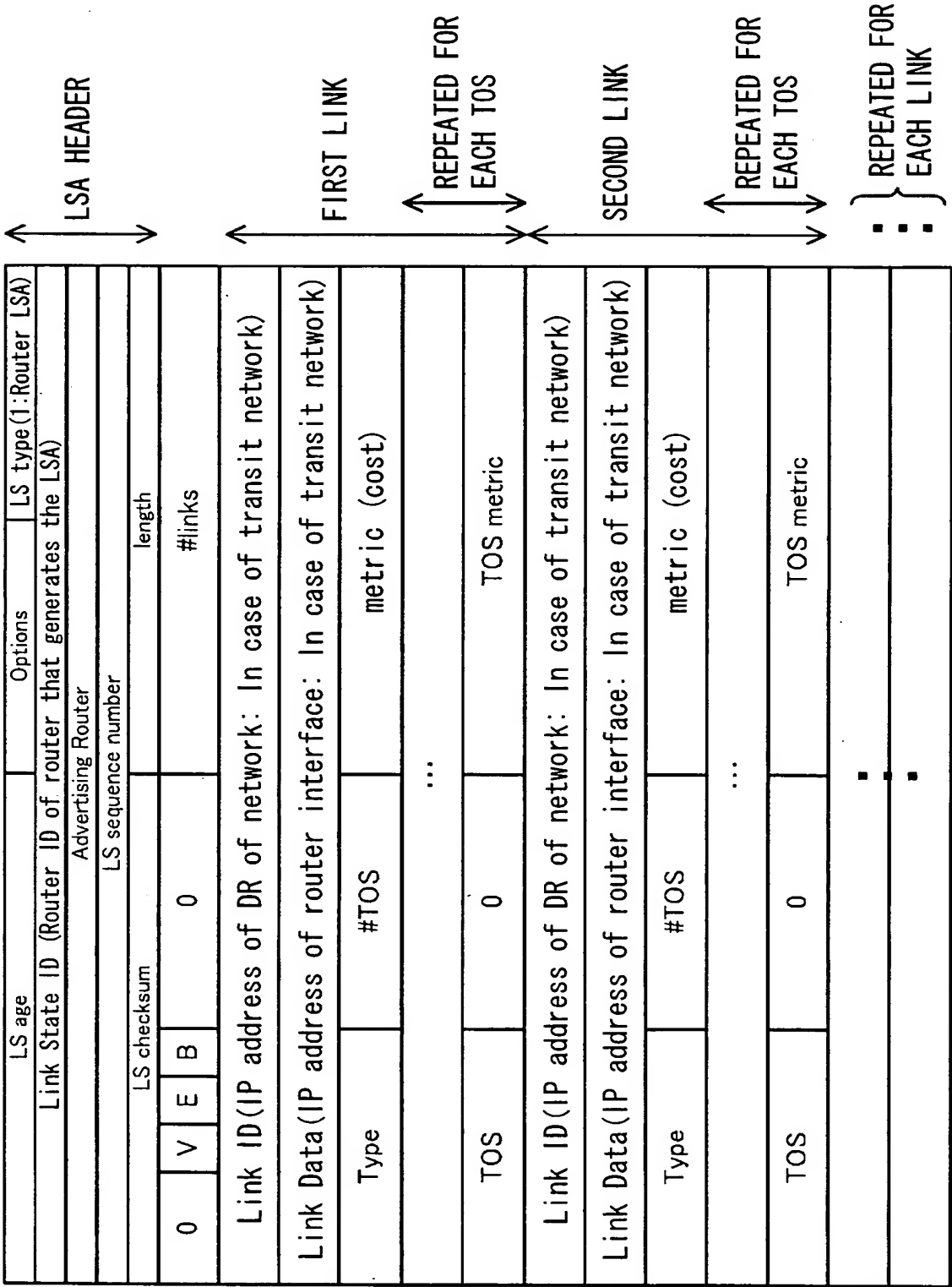


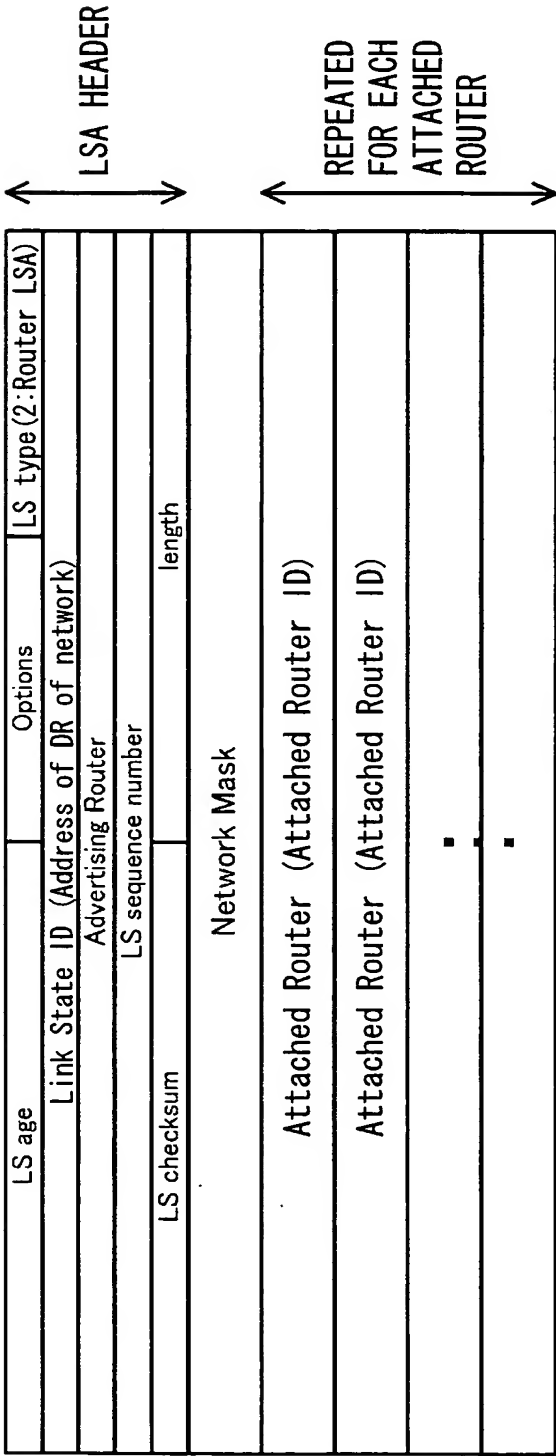
FIG.11





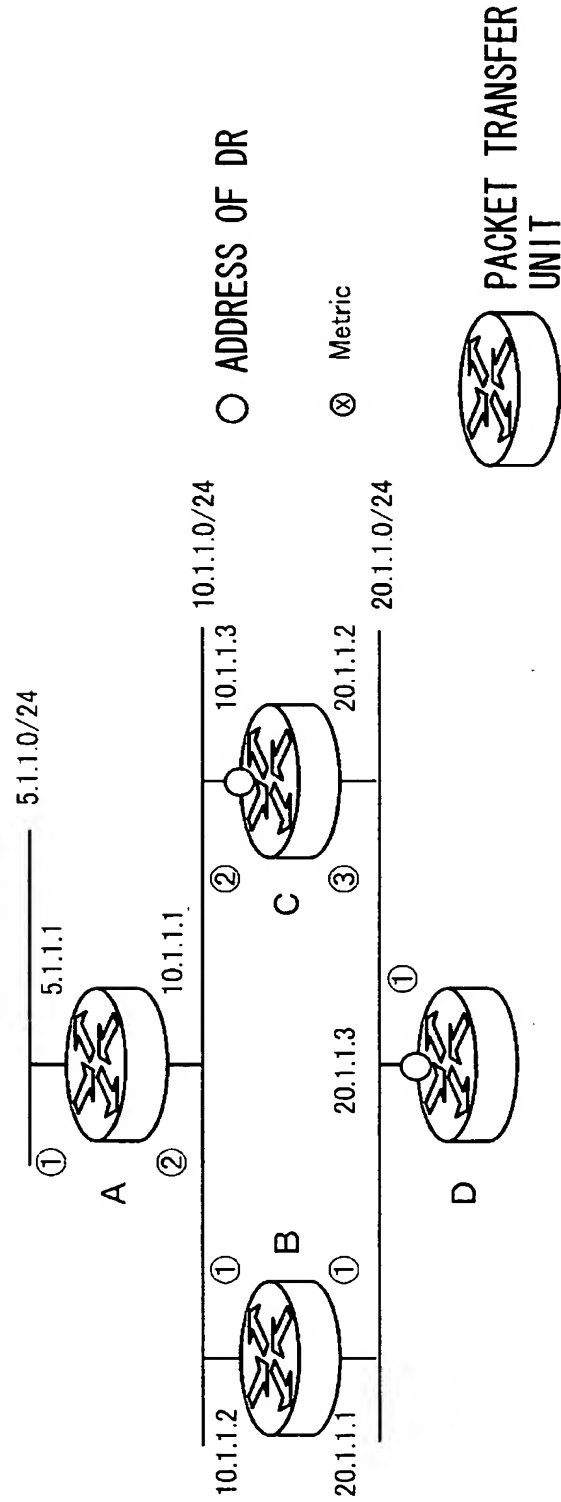
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FIG.12



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FIG.13



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FIG.14

LSDB

LS TYPE	Link State ID	Advertising Router	LS Sequence number	Link ID (OR when Transit NW)	Link Data	Metric	...
1(Router LSA)	10.1.1.1	10.1.1.1	0x80000002	5.1.1.0	255.255.255.0	①	
				10.1.1.3	10.1.1.1	②	
1	20.1.1.1	20.1.1.1	0x80000004	10.1.1.3	10.1.1.2	①	...
				20.1.1.3	20.1.1.1	①	
1	...	...	...	...	...	...	
LS TYPE	Link State ID(DR)	Advertising Router	LS Sequence number	Netmask	Attached Router	...	...
				24	10.1.1.1		
2(Network LSA)	10.1.1.3	20.1.1.2	0x80000008	24	20.1.1.1	...	...
				24	20.1.1.2		
2	...	...	...	...	...	...	...
...							

STORED IN TCAM

STORED IN EXTERNAL MEMORY

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FIG.15

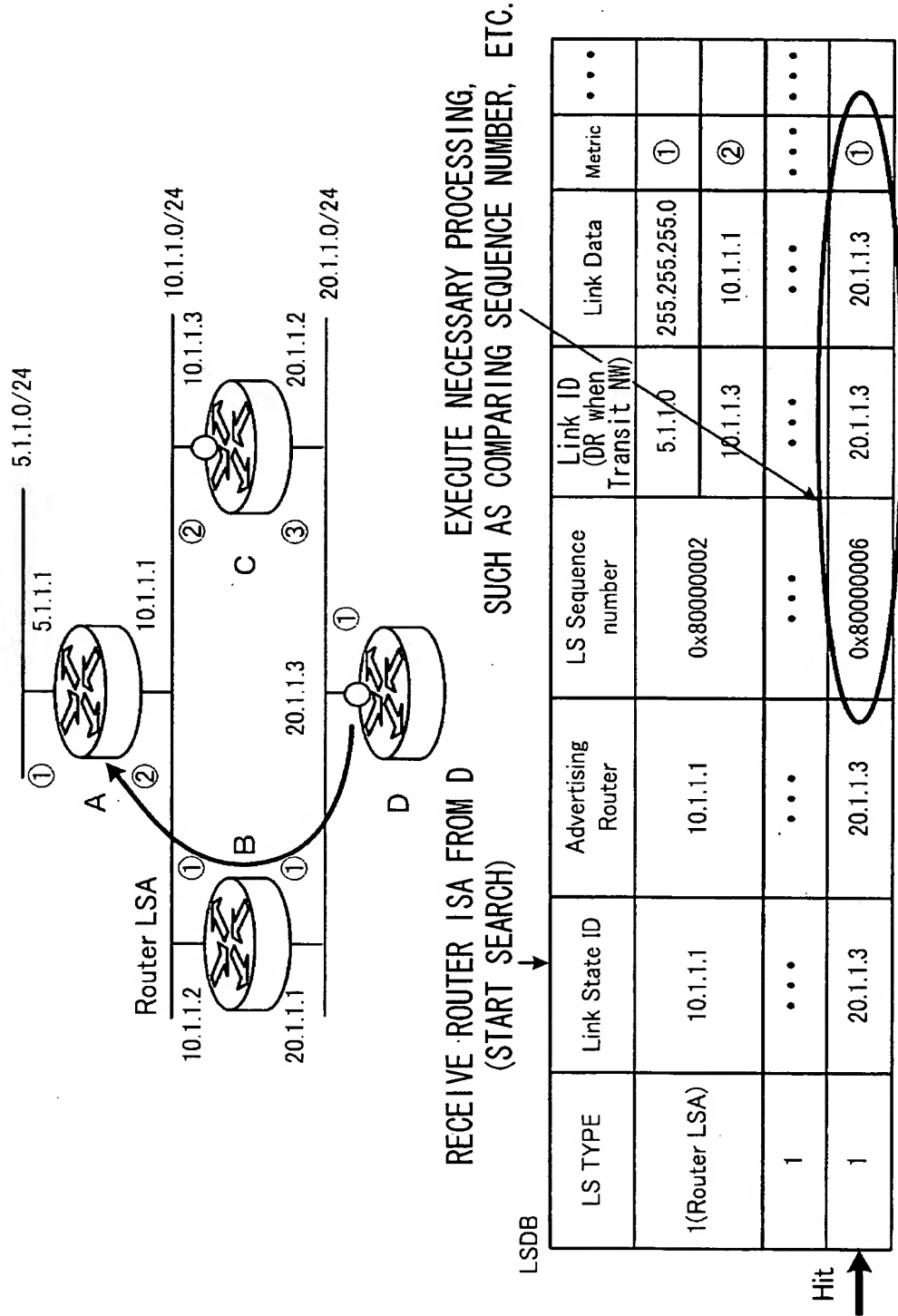
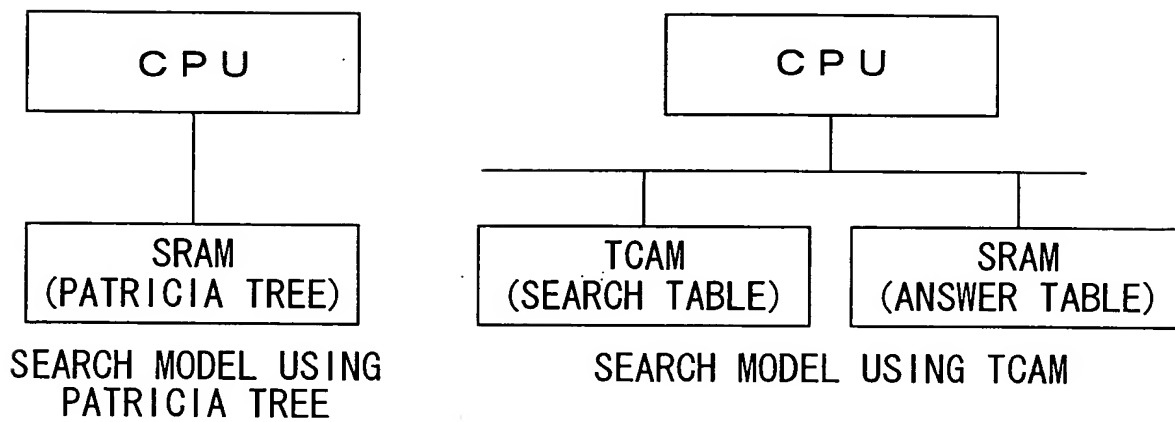


FIG.16

LSDB

LS TYPE	Link State ID	Advertising Router	LS Sequence number	Link ID (DR when Transit NW)	Link Data	Metric	...
1(Router LSA)	10.1.1.1	10.1.1.1	0x80000002 Step1	5.1.1.0	255.255.255.0	①	
1	20.1.1.1	20.1.1.1	0x80000004 Step2	10.1.1.3	10.1.1.2	①	...
LS TYPE	Link State ID(DR)	Advertising Router	LS Sequence number	Netmask	Attached Router	...	...
2(Network LSA)	10.1.1.3	20.1.1.2	0x80000006 Step3	24	10.1.1.1		
				24	20.1.1.1	...	...
				24	20.1.1.2		

FIG.17



(NOTE) SRAM ACCESS TIME: 5 ns, TCAM ACCESS TIME: 5 ns

FIG.18

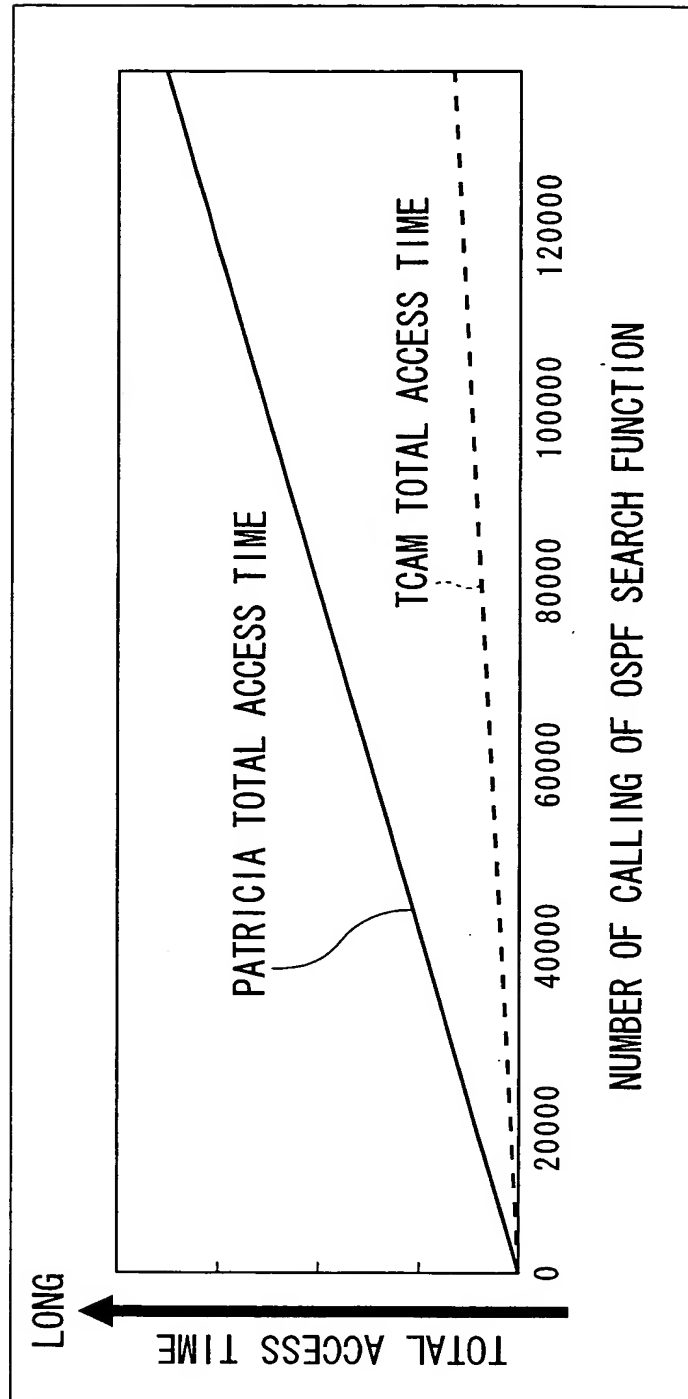


FIG.19

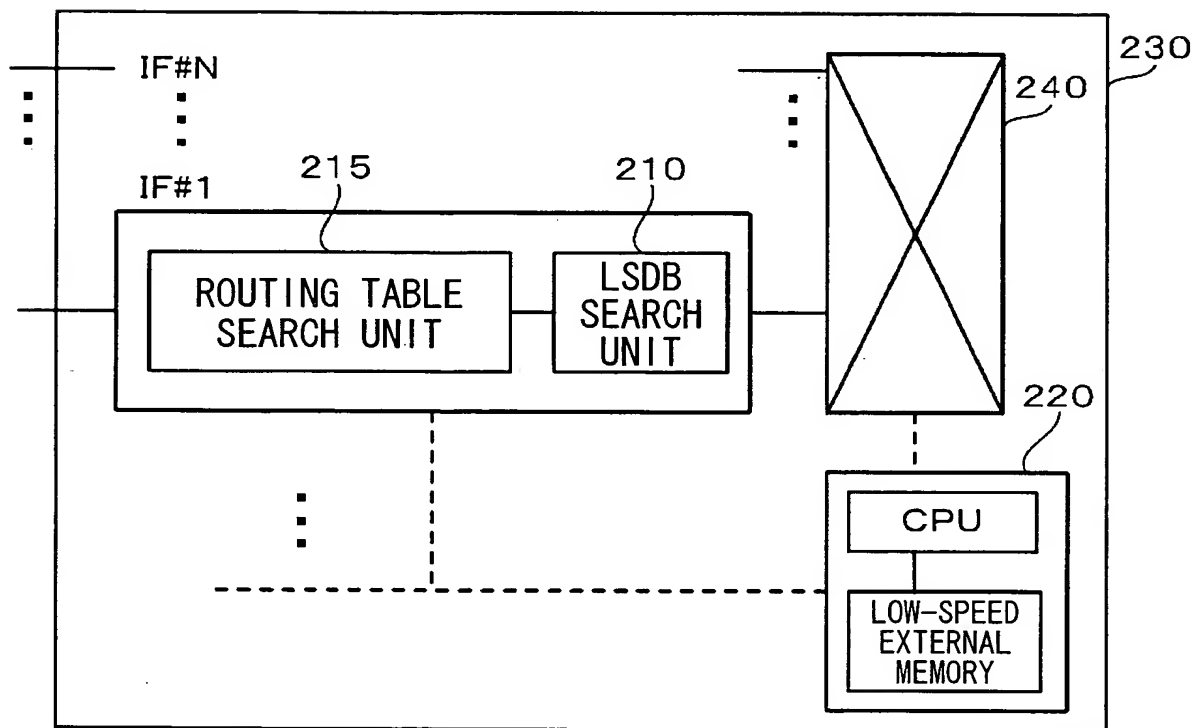


FIG.20

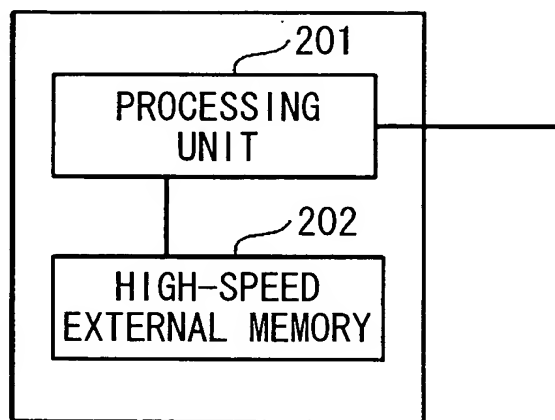




FIG.21

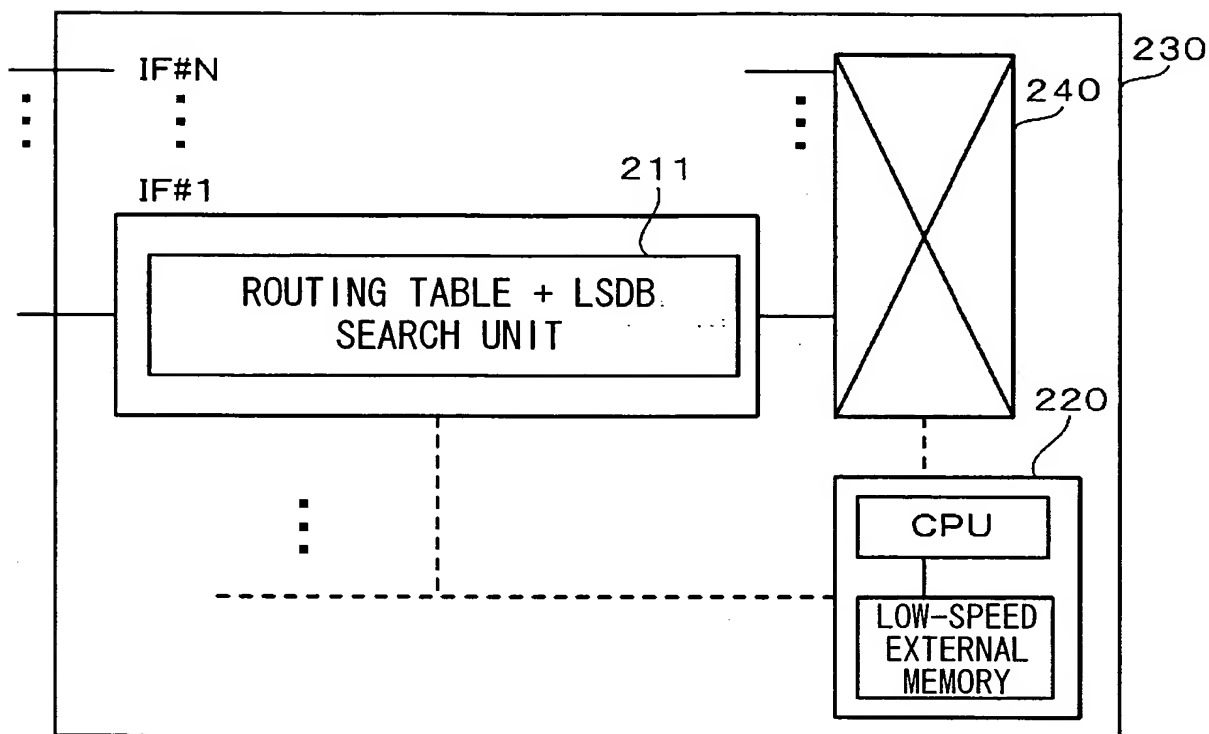


FIG.22

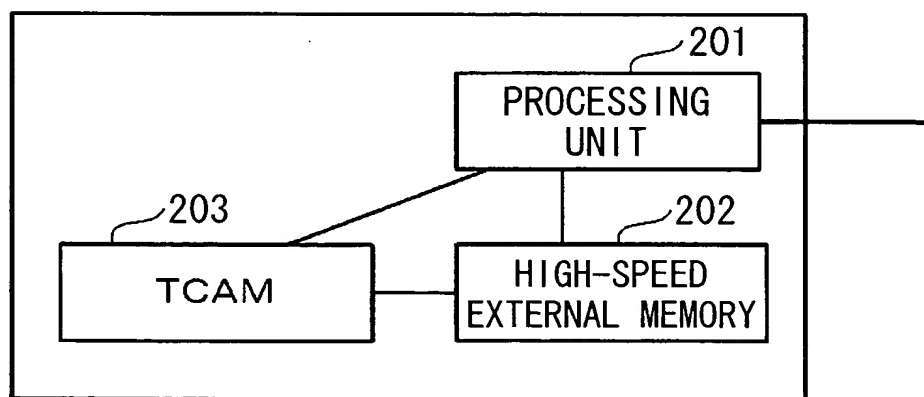


FIG.23

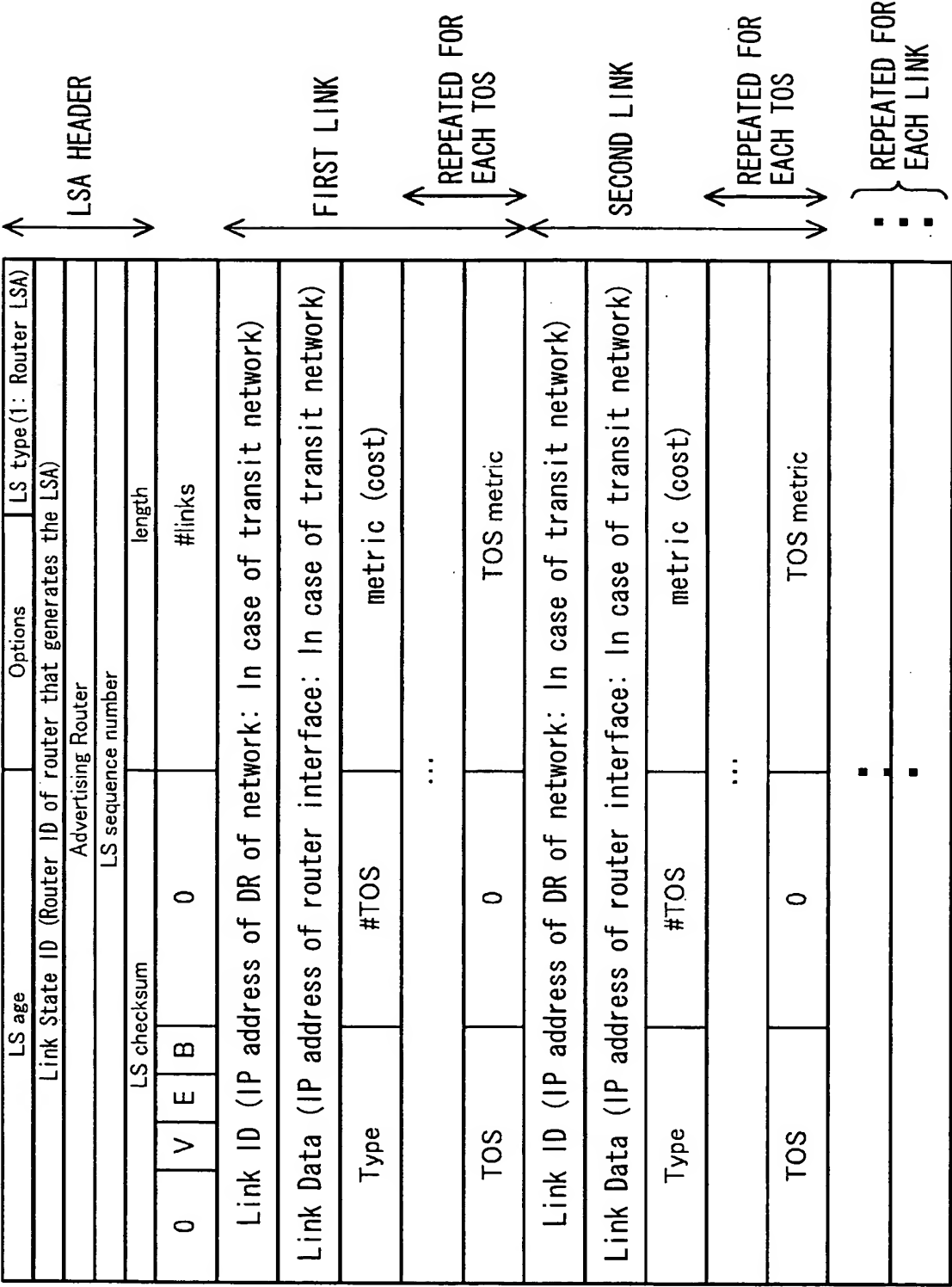


FIG.24

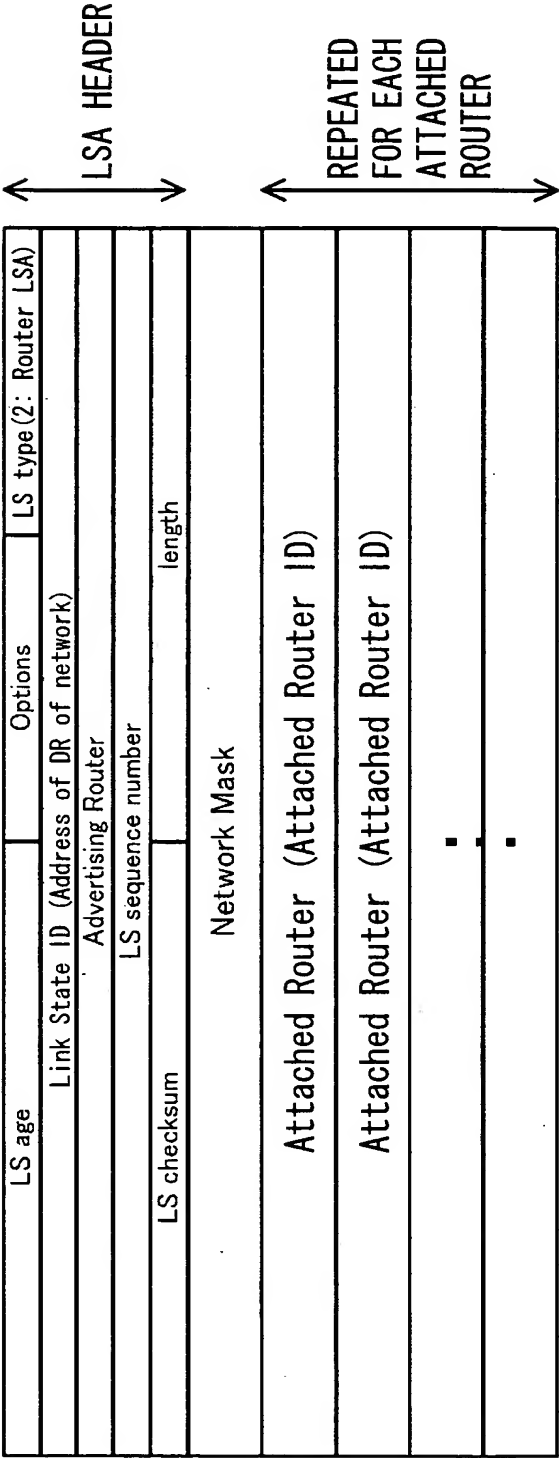
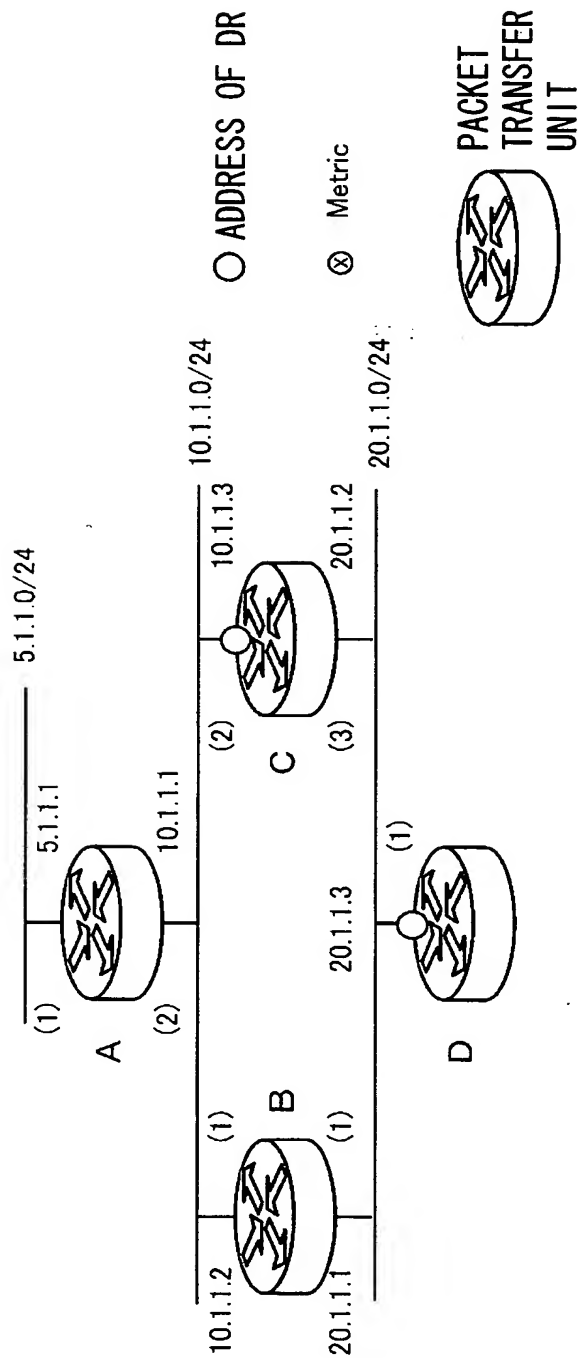


FIG.25



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FIG.26

LSDB

LS TYPE	Link State ID	Advertising Router	LS Sequence number	LS checksum	LS age
1(Router LSA)	10.1.1.1	10.1.1.1	0x80000002	005	133
1	20.1.1.1	20.1.1.1	0x80000004	110	310
1	...	...	...	...	...
LS TYPE	Link State ID(DR)	Advertising Router	LS Sequence number	LS checksum	LS age
2(Network LSA)	10.1.1.3	20.1.1.2	0x80000008	115	218
2	...	...	...	...	...
...					

ITEMS UNIQUELY IDENTIFYING INFORMATION

LS SEQUENCE NUMBER, ETC.



FIG.28

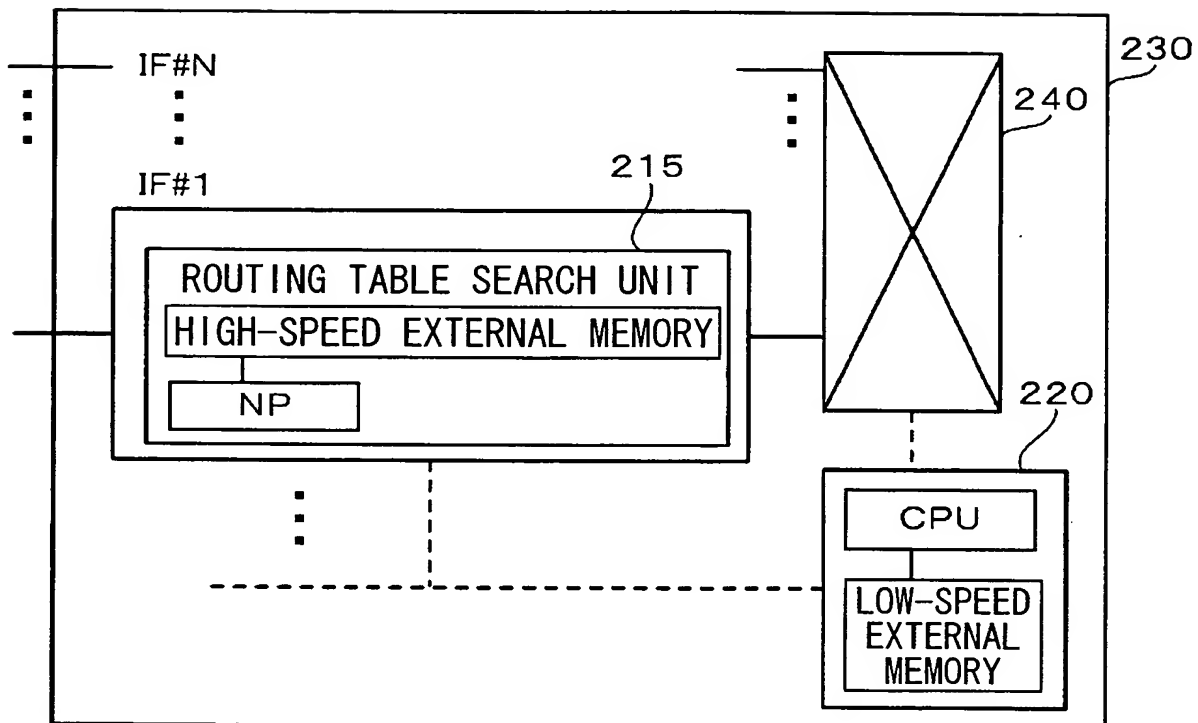


FIG.29

